

12-7-01
3126095005

REMARKS

Applicant respectfully traverses and requests reconsideration.

Applicant has submitted an amendment to claim 7, directed solely to correct a typographical error. This amendment is not substantive in nature, but solely directed to correcting an informality.

The Examiner rejects Claims 1-9, 14 and 17 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5, 359,702 issued to Mukai ("Mukai").

Regarding claim 1, Applicant submits that Mukai fails to teach the claimed limitations of claim 1. Mukai teaches having a lookup table generator 44 generate a plurality of look up tables, but then, under the direction of a control unit 26, the lookup table generator 44 stores one of the gamma correction tables in the look-up table setting unit 40 based on which image signal source (12a-12d) is provided to the control unit 26. (See e.g. col. 6, lines 11-14). Moreover, the specific lookup table provided to the lookup table setting unit 44 is determined based on the channel number entered from the control panel 32. (See e.g. col. 6, lines 43-46). When the A/D 22 converts a complete frame, the frame is then processed by the look up table setting unit 40, where the gamma values are adjusted. The output signal S4 is then provided to an image output device. Claim 1 claims, *inter alia*, a plurality of gamma correction lookup tables which provide a set of output data in response to received input data and a gamma table selector which selects the set of output data corresponding to one of the plurality of lookup tables based on gamma selection information. Mukai fails to teach or suggest claimed limitations of claim 1 because Mukai teaches, *inter alia*, providing a single lookup table to the lookup table setting unit 44 and producing a single output signal (S4). Moreover, Mukai fails to teach or suggest, *inter alia*, the gamma table selector of claim 1 because Mukai does not need a table selector which selects the set of output data corresponding to one of the plurality of lookup tables based on gamma selection information, because Mukai produces the single output signal (S4). Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations.

Regarding claims 2-3, Applicant reasserts the above comments regarding claim 1. Applicant submit that claims 2-3 contain further patentable subject matter neither taught nor

suggested by Mukai, and a further dependent upon allowable base claim. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations.

Regarding claim 4, Applicant reasserts the above comments regarding claims 1 and 3. Furthermore, Applicant submits that Mukai fails to teach or suggest, *inter alia*, a gamma table selector further comprising a multiplexor that receives the sets of output data from the plurality of gamma correction lookup tables because Mukai does not teach of a gamma table selector, moreover, Mukai would not require a multiplexor because of the signal output signal (S4). The Examiner has indicated the control unit 26 as the table selector comprising a multiplexor, to which the Applicant respectfully disagrees, as the control unit directs an input signal prior to being subject to the lookup table setting unit. The claimed gamma table selector receives the sets of output data from the plurality of gamma correction lookup tables, where Mukai teaches providing a gamma corrected output signal from the lookup table setting unit 40. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations.

Regarding claim 5, Applicant reasserts the above comments regarding claim 4. Furthermore, Applicant submits Mukai fails to teach or suggest, *inter alia*, gamma correction tables which are memory structure addressed by the received input data. The Examiner cites to col. 7, lines 45 et seq. in support of this rejection, to which applicant respectfully disagrees. The cited passage notes that when a different input signal is provided, a different lookup table may be stored in the lookup table setting unit, based on which video signal (Sb through Sd) is generated from the image signal sources 12b through 12d. The Mukai input signal, such as Sb, does not address the memory structure, but rather the control unit 26, based on the channel being used, loads a different gamma correction table. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations.

Claim 6 claims, *inter alia*, a gamma correction block comprising a gamma correction lookup table, wherein the gamma correction lookup table provides a plurality of sets of gamma corrected data in response to a set of input data. This is neither taught nor suggest by Mukai

because Mukai teaches, among other things, providing a single output signal S4, providing a single set of gamma corrected data. (See col. 6, lines 11-14). Furthermore, claim 6 claims, *inter alia*, a selection block operably coupled to the gamma correction lookup table, wherein the selection block selects a selected set of gamma corrected data from the plurality of sets of gamma corrected data. Mukai fails to teach, *inter alia*, a selection block as the output signal, S4, is a single signal and not a plurality of sets of gamma correction data because Mukai does not need a selection block due to producing a single output signal S4. Moreover, Applicant reasserts the above comments directed to claim 1. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations.

Claims 7 claims, among other things, a gamma correction circuit comprising a lookup table that stores gamma corrected data corresponding to a plurality of gamma correction curves, wherein a first portion of input signals select a particular gamma correction curve and wherein a second portion of the input signals select the set of gamma corrected data from the gamma correction curve. Mukai teaches, *inter alia*, fetching the desired gamma correcting table based on the channel number entered from the control pane, failing to teach or suggest, *inter alia*, a first portion of the input signal selecting a particular gamma correction curve and a second portion of the input signal selecting the set of gamma corrected data from the gamma correction curve. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations.

As to claim 8, Applicant reasserts the comments directed to claim 7. Furthermore, Applicant submits Mukai fails to teach or suggest, *inter alia*, a selection block operably coupled to the lookup table, wherein the selection receives selection signals and selected a selected data set from the plurality of gamma corrected data sets, because not only does Mukai not produce a plurality of gamma corrected data sets, as Mukai produces a single output signal S4, but also Mukai does not need a selection block having the single output signal. In support of this rejection, the Examiner has cited col. 6, lines 28 et seq., to which Applicant respectfully disagrees, as the Examiner has failed to provide support for, *inter alia*, the selection block. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations.

Claim 9 claims, among other things, a means for selecting a gamma corrected data set based on curve information that selects a selected curve from the plurality of gamma correction curves and position information that selects the gamma corrected data set at a corresponding position on the selected curve. Mukai fails to teach or suggest, *inter alia*, this claimed limitation because Mukai teaches selecting a gamma correction table based on which input source (12a-12d) is being used, see col. 6, lines 42-48. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations.

Claim 14 claims, *inter alia*, a video graphics circuit comprising a gamma correction block that stores a plurality of sets of precomputed gamma corrected data. Mukai fails to teach or suggest the claimed limitations of claim 14 because Mukai teaches, among other things, loading a single gamma correction table into the lookup table setting unit, see col. 6, lines 28-32 to produce a single output signal S4. Moreover, Mukai fails to teach or suggest, *inter alia*, a gamma correction block that receives display information and gamma selection information. Furthermore, the Examiner has failed to provide support for the rejection these claimed limitations. Therefore, should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations.

Claim 17 claims, among other things, selecting a set of gamma corrected data based on the pixel information and the gamma selection information. Mukai fails to teach or suggest, *inter alia*, these claim limitations because Mukai teaches, *inter alia*, selecting the gamma correcting table based on the channel number entered from the control panel 32. (See Col. 6, lines 43-54). Moreover, Applicant reasserts the position that the Examiner has failed to provide support the rejection of the claimed limitations the pixel information and gamma selection information. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations

Claims 10-13 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Mukai. Regarding claim 10, Mukai fails to teach or suggest, *inter alia*, a gamma correction

circuit comprising a lookup table, wherein the lookup table receives gamma selection information that selects a selected gamma correction curve because Mukai teaches, *inter alia*, a lookup table setting unit that receives a gamma correcting table, and converts signal S_2 to S_4 . The lookup table setting unit never receives gamma selection information that selects a selected gamma correction curve, as this gamma correcting table of Mukai is determined by the channel number entered from the control panel 32. (See Col. 6, lines 43-54). Furthermore, Mukai fails to teach or suggest, *inter alia*, wherein the lookup table receives a first portion of pixel information that selects a segment slope and an offset corresponding to a selected piecewise linear segment and a second portion of pixel information to produce a value on the selected piecewise linear segment. The Examiner has failed to provide support the teaching of these claimed limitations. Moreover, Applicant respectfully disagrees with the Examiner's assertion that that it would have been obvious to use an arithmetic block as combining an arithmetic block with Mukai still fails to produce the claimed present invention. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations, including a specific showing of the teachings of a first portion of pixel information and a second portion of pixel information.

Regarding claim 11, Applicant reasserts the comments regarding claim 10. Furthermore, Applicant submits Mukai fails to teach or suggest, *inter alia*, multiplying the segment slope and the second portion of pixel information. As noted with respect to claim 10, Mukai fails to teach or suggest, *inter alia*, the second portion of pixel information, therefore it would not have been obvious to multiply this second portion with the segment slope. Moreover, Applicant respectfully disagrees with the Examiner's assertion that col. 8, lines 39 et seq. teach or suggest this claimed limitation, as this passage teaches generating a gamma correction table by converting the contrast of the gamma correction table and thereby generating a new gamma correction table. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations, including a specific showing of the teachings of a first portion of pixel information and a second portion of pixel information.

Regarding claims 12-13, Applicants reassert comments regarding claims 10 and 11. Moreover, regarding claim 12, Mukai teaches the storing a gamma correction tables may be

stored in the memory 46, but Mukai never explicitly teaches the memory 46 being either a read only memory structure or a random access memory structure. Moreover, Applicant respectfully disagrees with the Examiner's assertion as these limitations being taught on col. 7, lines 20 et seq and 50 et seq. Therefore the rejection of claims 12 and 13 is improper. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations, including a specific showing of the teachings of a first portion of pixel information and a second portion of pixel information.

Regarding claim 19, Mukai fails to teach or suggest, *inter alia*, of a pixel information having a first portion and a second portion. Moreover, Mukai further fails to teach or suggest the lookup table providing a slope in response to the first portion of pixel information and multiplying the slope by the second portion of pixel information. Mukai teaches, *inter alia*, selecting a gamma correcting table based on which channel is designated as the input. The signal S2 is provided from the frame buffer to the lookup table setting unit, to which the gamma correcting table has already been provided. Thereupon, the lookup table setting unit produces output signal S4 having adjusted gamma values, which is not equivalent to the claimed invention of claim 19. Should the Examiner maintain the present rejection, Applicant respectfully requests an explicit showing, including column and line numbers, of the teachings of the claimed limitations, including a specific showing of the teachings of a first portion of pixel information and a second portion of pixel information.

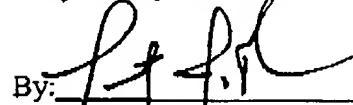
Furthermore, the Examiner objects to Claims 15-16 and 18 as being dependent upon a rejected base claim. Applicant submits that in view of the above discussion, this objection is improper.

Attached hereto is a marked-up version of the change made to Claim 7 by the current amendment. The attached page is captioned: "Version with Markings to Show Changes Made."

In view of above, it is respectfully submitted that the application is now in condition for allowance. If the Examiner believes that a telephone interview may expedite the prosecution of the Application, the Examiner is invited to contact the below attorney at the telephone number indicated below.

Respectfully submitted,

By:


Timothy J. Bechen
Registration No. 48,126

December 7, 2001

VEDDER PRICE KAUFMAN AND
KAMMHOLZ
222 North LaSalle Street
Chicago, IL 60601
(312) 609-7599; FAX: (312) 609-5005

VERSION WITH MARKINGS TO SHOW CHANGES MADE

7. (Once Amended) A gamma correction circuit comprising:

a lookup table that stores gamma corrected data corresponding to a plurality of gamma correction curves, wherein the lookup table receives input signals that select a set of gamma corrected data from the lookup table, wherein a first portion of the input signals selects a particular gamma correction curve of the plurality of gamma correction curves, and wherein a second portion of the input signals selects the set of gamma corrected data from the particular gamma correction curve.